

REMARKS

The Examiner has rejected Claim 18 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Examiner has also rejected Claims 13, 16, and 18 under 35 U.S.C. § 112, second paragraph, as being indefinite. In addition, the Examiner has rejected Claims 13-15, 21, and 23-26 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,585,723 to Sumiya (“Sumiya”). The Examiner has also rejected Claims 18, 19, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Sumiya. In addition, the Examiner has rejected Claims 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Sumiya in view of U.S. Patent Application Pub. No. 2004/0152987 to Haisch (“Haisch”). The Examiner also rejects Claims 27-29 under 35 U.S.C. § 103(a) as being unpatentable over Sumiya in view of U.S. Patent Application Pub. No. 20050107708 to Wrobel et al. (“Wrobel”).

Claims 13, 16, and 18 stand currently amended, and Claims 17, 19, and 27-29 stand currently canceled. Claims 1-12 and 20 stand previously canceled. Claims 13-16, 18, and 21-26 are currently pending. The following remarks are considered by applicant to overcome each of the Examiner's outstanding rejections to current Claims 13-16, 18, and 21-26. An early Notice of Allowance is therefore requested.

I. SUMMARY OF RELEVANT LAW

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The determination of obviousness rests on whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. In determining obviousness, four factors should be weighed: (1) the scope and content of the prior art, (2) the differences between the art and the claims at issue, (3) the level of ordinary skill in the art, and (4) whatever objective evidence may be present. Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. The Examiner carries the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness and must show that the references relied on teach or suggest all of the limitations of the claims.

II. REJECTION OF CLAIM 18 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

On page 2 of the current Office Action, the Examiner rejects Claim 18 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully traversed and believed overcome in view of the following discussion.

A. Claim 18

As a preliminary matter, while Examiner rejects Claim 18 under 35 U.S.C. § 112, first paragraph, Examiner seems to be objecting to language of Claim 17 (which has been incorporated in Claim 16) in the specifics of the rejection. In particular, Examiner seems to have a problem with the wavelength being 365 nm. However, this language is not present in Claim 18, but is rather present in Claim 16. As such, Examiner's current rejection of Claim 18 under 35 U.S.C. § 112, first paragraph, is incoherent and confusing. In fact, Examiner has failed to indicate any portion of Claim 18 whatsoever which fails to satisfy 35 U.S.C. § 112, first paragraph.

Accordingly, Applicants respectfully assert that Examiner has failed to establish a *prima facie* case that Claim 18 fails to comply with the enablement requirement. Therefore, Applicants respectfully request the Examiner withdraw the rejection of Claim 18 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

B. Claim 17 (now in Claim 16)

In addition, if Examiner intended to reject Claim 17 (which has been incorporated in Claim 16) under 35 U.S.C. § 112, first paragraph, such a rejection cannot be sustained.

First, Examiner's objection to the claimed wavelength of 365 nm is **incomplete**, and is thus **incomprehensible**. For this reason alone, a rejection of Claim 16 cannot be sustained on the basis of Examiner's current arguments.

Second, the Specification clearly explains how an illuminating and irradiating unit for a slit lamp uses an illumination source 1 which is a narrow-band light in the **short-wavelength range around 365 nm**. Specification, ¶¶ [0017]-[0021]. The Specification also explains how other applications (e.g., photodynamic therapy ("PDT"))

use narrow-band, **long-wavelength** light, preferably around **690 nm**, which is emitted by the illumination source 1. Specification, ¶ [0022]. As such, having an illumination source which generates narrow-band light around 365 nm is **fully enabled** by the Specification.

Accordingly, Applicants respectfully assert that Claim 16 is fully enabled. Therefore, Applicants respectfully assert the Examiner could not maintain a rejection of Claim 17 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

III. REJECTION OF CLAIMS 13, 16, AND 18 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

On page 3 of the current Office Action, the Examiner rejects Claims 13, 16, and 18 under 35 U.S.C. § 112, second paragraph, as being indefinite. These rejections are respectfully traversed and believed overcome in view of the following discussion.

Claims 13 is currently amended to address the antecedent basis issue raised by Examiner. In addition, Claim 16 stands currently amended to include the language of Claim 17. Similarly, Claim 18 stands currently amended to include the language of Claim 19. As such, Applicants respectfully assert that Claims 13, 16, and 18 are now in acceptable form.

Accordingly, Applicants respectfully assert that Claims 13, 16, and 18 are **not** indefinite. Therefore, Applicants respectfully request the Examiner withdraw the rejection of Claims 13, 16, and 18 under 35 U.S.C. § 112, second paragraph, as being indefinite.

IV. REJECTION OF CLAIMS 13-15, 21, AND 23-26 UNDER 35 U.S.C. § 102(B) BASED ON SUMIYA

On page 3 of the current Office Action, the Examiner rejects Claims 13-15, 21, and 23-26 as being anticipated by Sumiya. These rejections are respectfully traversed and believed overcome in view of the following discussion.

Claim 13 states, in part:

“means for generating **specific illumination patterns and/or profiles**; and

“means for coupling a **complete one** of the specific illumination patterns and/or profiles into a parallel beam path of the observation system of the ophthalmic instrument;

“wherein optical filters, diaphragms, and/or optoelectronic light modulators with a control unit are **used as the means for generating specific illumination patterns and/or profiles.**”

As such, Claim 13 requires that there is a means for **generating specific illumination patterns and/or profiles**, and that there is a means for **coupling a complete one** of the specific illumination patterns and/or profiles into a parallel beam path of the observation system of the ophthalmic instrument. Sumiya fails to disclose these elements of Claim 13.

In particular, Sumiya is directed to a device for corneal surgery for ablating a portion of the cornea of a patient's eye to correct refraction defects of the eye or to remove a lesion from an eye. Such ablation of the cornea of a patient's eye is carried out, for example, with the aim of changing the refractive power for correcting ametropia such as myopia, hypermetropia, astigmatism, and the like or to remove an affected area of the cornea such as opacity.

For this purpose, Sumiya's arrangement comprises an irradiation unit which directs a laser beam to an area on the cornea of a patient's eye. But the laser beam is **not** focused on this area so as to **generate specific illumination patterns and/or profiles.**

Furthermore, Sumiya's arrangement comprises a cornea shape measuring unit for measuring the three-dimensional shape of the cornea which has an optical measurement light projection system for **projecting measurement light onto the cornea.** The measurement light reflected by the cornea is received and evaluated by an optical photodetector.

In order to calculate the three-dimensional shape of the cornea, the cornea is scanned in the X-Y directions. For this purpose, the **projection spot of measurement light** is displaced on the cornea by a scan unit in X-Y directions. Accordingly, **no specific illumination patterns and/or profiles are generated** by the optical measurement light projection system either.

Moreover, Sumiya's solution does **not** describe an illumination and irradiation unit for ophthalmic instruments, **but rather** describes a device for corneal surgery for scanning the cornea and for ablating portions of the cornea of the patient's eye.

In addition, Sumiya's solution does **not** contain means for generating specific illumination patterns and/or profiles. On the contrary, an **individual laser spot is focused** on the cornea (to be scanned or ablated) in Sumiya. The cornea is scanned correspondingly by means of a scanning unit. While *ultimately* a pattern is generated by the scanning unit, this takes place *gradually* by scanning. In Claim 13, however, **complete** illumination patterns and/or profiles are generated and imaged on the eye.

Further, the light from the illumination source is **not** coupled into the parallel beam path of the observation system of the ophthalmic instrument in Sumiya. On the contrary, the measurement beam from the laser source 11 and the therapy beam from the excimer laser 26 are reflected into the beam path focused on the cornea by the dichroic mirror 21. The only parallel beam paths in Sumiya are between the lenses 31 and 36 in the observation beam path and between the lenses 15 and 18 in the illumination beam path.

Also, no illumination patterns and/or profiles within the meaning of Claim 13 are generated in Sumiya. More specifically, in Sumiya a "pattern" is generated by the scanning movement of a laser spot. In Claim 13 however, a one-time generation of a **complete illumination pattern and/or profile** which is imaged on the eye **simultaneously** is carried out. This **cannot** be accomplished by the scanning unit of Sumiya.

In fact, Sumiya states that the control unit 40 calculates the three-dimensional cornea shape based on detection signals of the **spot** of the infrared laser beam of the measurement light projection system. Sumiya, Col. 7, Ln. 63 – Col. 8, Ln. 8. Irradiation **spots** can **hardly be** called specific illumination **patterns or profiles**.

Therefore, Sumiya's solution does not contain any means for generating and coupling **complete** specific illumination patterns and/or profiles. The optical elements which the Examiner identifies as such means are **not suited** for generating illumination patterns and/or profiles, or for coupling a **complete one** of the specific illumination

patterns and/or profiles into a parallel beam path of the observation system of the ophthalmic instrument.

As such, Applicant respectfully asserts that Examiner has failed to establish a *prima facie* case of anticipation of independent Claim 13, and corresponding Claims 14, 15, 21, and 23-26 because they are each ultimately dependent from Claim 13. Therefore, Applicant respectfully requests that Examiner remove the rejection of Claims 13-15 and 20-26 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,585,723 to Sumiya.

V. REJECTION OF CLAIMS 18 AND 22 UNDER 35 U.S.C. § 103(A) BASED ON SUMIYA

On page 6 of the current Office Action, the Examiner rejects Claims 18 and 22 as being unpatentable over Sumiya. These rejections are respectfully traversed and believed overcome in view of the following discussion.

Claims 18 and 22 are dependent from independent Claim 13. As Claim 13 is allowable, so must be Claims 18 and 22. Accordingly, Applicants respectfully assert that Examiner has failed to establish a *prima facie* case of obviousness of Claims 18 and 22. Therefore, Applicant respectfully requests that Examiner remove the rejection of Claims 18 and 22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,585,723 to Sumiya.

VI. REJECTION OF CLAIM 16 UNDER 35 U.S.C. § 103(A) BASED ON SUMIYA IN VIEW OF HAISCH

On page 7 of the current Office Action, the Examiner rejects Claim 16 as being unpatentable over Sumiya in view of Haisch. This rejection is respectfully traversed and believed overcome in view of the following discussion.

Claim 16 is ultimately depend from independent Claim 13. As Claim 13 is allowable, so must be Claim 16. Accordingly, Applicants respectfully assert that Examiner has failed to establish a *prima facie* case of obviousness of Claim 16. Therefore, Applicant respectfully requests that Examiner remove the rejection of Claim 16 under 35 U.S.C. §

103(a) as being unpatentable over U.S. Patent No. 6,585,723 to Sumiya in view of U.S. Patent Application Pub. No. 2004/0152987 to Haisch.

Based upon the above remarks, Applicant respectfully requests reconsideration of this application and its early allowance. Should the Examiner feel that a telephone conference with Applicants' attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,

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